AMENDMENTS TO THE CLAIMS

Claims 1-29 (Canceled)

30. (New) A transgenic mouse whose genome comprises a homozygous disruption in a limulus clotting factor gene comprising the sequence set forth in SEQ ID NO:1, wherein the transgenic mouse exhibits, relative to a wild-type mouse, increased sensitivity to pain or increased susceptibility to seizure.
31. (New) The transgenic mouse of claim 30, wherein the transgenic mouse exhibits a decreased latency to respond to a thermal stimulus, relative to a wild-type mouse.
32. (New) The transgenic mouse of claim 30, wherein the transgenic mouse requires a lower dose of metrazol than a wild-type mouse to reach characteristic stages of seizure.
33. (New) A cell or tissue isolated from the transgenic mouse of claim 30.
34. (New) A method of producing a transgenic mouse whose genome comprises a disruption in a limulus clotting factor protease-like gene comprising the sequence set forth in SEQ ID NO:1, the method comprising:
    (a) introducing a targeting construct capable of disrupting the sequence set forth in SEQ ID NO:1 into a mouse embryonic stem cell;
    (b) introducing the cell into a blastocyst;
    (c) implanting the resulting blastocyst into a pseudopregnant mouse, wherein said mouse gives birth to a chimeric mouse; and
    (d) breeding the chimeric mouse to produce the transgenic mouse whose genome comprises a disruption in a limulus clotting factor protease-like gene comprising the sequence set forth in SEQ ID NO:1,

    wherein the transgenic mouse exhibits, relative to a wild-type mouse, increased sensitivity to pain or increased susceptibility to seizure.
35. (New) A method of identifying an agent that modulates a condition associated with a disruption in a limulus clotting factor protease-like gene comprising the sequence set forth in SEQ ID NO:1, the method comprising:
    (a) administering a putative agent to a transgenic mouse whose genome comprises a homozygous disruption in the limulus clotting factor protease-like gene, wherein the

transgenic mouse exhibits, relative to a wild-type mouse, increased sensitivity to pain or increased susceptibility to seizure; and

(b) determining whether the agent has an effect on the sensitivity to pain or susceptibility to seizure in the transgenic mouse.